

# SEQUENCE LISTING

<110> Loosmore, Sheena M.  
Sasaki, Ken  
Yang, Yan Ping  
Klein, Michel H.

<120> RECOMBINANT HIGH MOLECULAR WEIGHT MAJOR OUTER MEMBRANE  
PROTEIN OF MORAXELLA

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<140> 09/361,619

<141> 2000-07-27

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<170> PatentIn Ver. 2.1

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<211> 1992

<212> PRT

<213> Moraxella catarrhalis

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Thr Ala Lys Ala Asp Gly Asp Arg Ala Ile Ala Ile Gly Glu Asn Ala
      35             40             45

Asn Ala Gln Gly Gly Gln Ala Ile Ala Ile Gly Ser Ser Asn Lys Thr
 50             55             60

Val Asn Gly Ser Ser Leu Asp Lys Ile Gly Thr Asp Ala Thr Gly Gln
 65             70             75             80

Glu Ser Ile Ala Ile Gly Gly Asp Val Lys Ala Ser Gly Asp Ala Ser
      85             90             95

Ile Ala Ile Gly Ser Asp Asp Leu His Leu Leu Asp Gln His Gly Asn
    100             105             110

Pro Lys His Pro Lys Gly Thr Leu Ile Asn Asp Leu Ile Asn Gly His
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Ala Val Leu Lys Glu Ile Arg Ser Ser Lys Asp Asn Asp Val Lys Tyr
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Ser Tyr Ala Gln Gly His Phe Ser Asn Ala Phe Gly Thr Arg Ala Thr
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Gly Gln Ser Thr Ile Ala Ile Gly Ser Asp Ala Thr Ser Ser Ser Leu
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 Ala Thr Lys Lys Asp Gly Thr Val Thr Phe Gly Leu Ser Gln Asp Ser  
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His Ala Gly Thr Gln Ala Lys Lys Ser Asp Gly Thr Ala Gly Thr Thr  
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Thr Thr Ala Gly Ala Thr Gly Thr Val Lys Gly Phe Ala Gly Gln Thr  
1845 1850 1855

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&lt;211&gt; 2047

&lt;212&gt; PRT

&lt;213&gt; Moraxella catarrhalis

&lt;400&gt; 4

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Lys	Ala	Ser	Gly	Asp	Ala	Ser	Ile	Ala	Ile	Gly	Ser	Asp	Asp	Leu	His
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Leu	Leu	Asp	Gln	His	Gly	Asn	Pro	Lys	His	Pro	Lys	Gly	Thr	Leu	Ile
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Leu	Ser	Ile	Gly	Ser	Asn	Ser	Ile	Lys	Arg	Lys	Ile	Ile	Asn	Val	Gly
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Ala	Gly	Val	Asn	Lys	Thr	Asp	Ala	Val	Asn	Val	Ala	Gln	Leu	Glu	Ala
			340			345						350			

Val	Val	Lys	Trp	Ala	Lys	Glu	Arg	Arg	Ile	Thr	Phe	Gln	Gly	Asp	Asp	355	360	365
Asn	Ser	Thr	Asp	Val	Lys	Ile	Gly	Leu	Asp	Asn	Thr	Leu	Thr	Ile	Lys	370	375	380
Gly	Gly	Ala	Glu	Thr	Asn	Ala	Leu	Thr	Asp	Asn	Asn	Ile	Gly	Val	Val	385	390	395
Lys	Glu	Ala	Asp	Asn	Ser	Gly	Leu	Lys	Val	Lys	Leu	Ala	Lys	Thr	Leu	405	410	415
Asn	Asn	Leu	Thr	Glu	Val	Asn	Thr	Thr	Thr	Leu	Asn	Ala	Thr	Thr	Thr	420	425	430
Val	Lys	Val	Gly	Ser	Ser	Ser	Ser	Thr	Thr	Ala	Glu	Leu	Leu	Ser	Asp	435	440	445
Ser	Leu	Thr	Phe	Thr	Gln	Pro	Asn	Thr	Gly	Ser	Gln	Ser	Thr	Ser	Lys	450	455	460
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Ala	Lys	Ser	Gly	Asn	Val	Thr	Ala	Pro	Thr	Tyr	Asn	Ile	Gly	Val	Lys	580	585	590
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Gly	Ser	Gly	Thr	Asn	Asn	Ser	Leu	Val	Thr	Ala	Glu	His	Leu	Ala	Ser	610	615	620
Tyr	Leu	Asn	Glu	Val	Asn	Arg	Thr	Ala	Asp	Ser	Ala	Leu	Gln	Ser	Phe	625	630	635
Thr	Val	Lys	Glu	Glu	Asp	Asp	Asp	Asp	Ala	Asn	Ala	Ile	Thr	Val	Ala	645	650	655

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Gly Gln Lys Asn Ala Asn Asn Gln Val Asn Thr Leu Thr Leu Lys Gly  
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 Gly Asn Asn Phe Thr Val Ser Asn Pro Tyr Ser Ser Tyr Asp Thr Ser  
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 Lys Thr Ser Asp Val Ile Thr Phe Ala Gly Glu Asn Gly Ile Thr Thr  
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Asn Gln Pro Arg Arg Ser Gly Thr Ala Lys Ala Asp Gly Asp Arg Ala
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Val	Ala	Thr	Leu	Ala	Ile	Leu	Val	Ile	Gly	Ala	Thr	Leu	Asn	Gly	Ser	50	55	60	
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Pro	Asp	Pro	Arg	Asn	Gln	Ala	Ala	Asn	Gln	Lys	Ala	Gly	Ser	His	Ala	115	120	125	
Lys	Gly	Lys	Glu	Ser	Ile	Ala	Ile	Gly	Gly	Asp	Val	Leu	Ala	Glu	Gly	130	135	140	
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Glu Ser Ile Ala Ile Gly Gly Asp Val Lys Ala Ser Gly Asp Ala Ser
      85              90              95

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Gly	Gln	Ser	Thr	Ile	Ala	Ile	Gly	Ser	Asp	Ala	Thr	Ser	Ser	Ser	Leu	195	200	205	
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